



First Responder Claims for PTSD in Workers' Compensation

Assessing the Effects of Senate Bill 542 in California

Concern over suicide risk and access to mental health care for firefighters and peace officers who have been exposed to work-related trauma prompted California in 2019 to pass Senate Bill (SB) 542, which promoted the workers' compensation system as a means to address work-related post-traumatic stress and other mental health conditions.

SB 542 created a rebuttable presumption that firefighters' and peace officers' posttraumatic stress disorder (PTSD) claims are work-related and thus eligible for full workers' compensation benefits. That shifted the burden of proof to employers to show that a mental health condition was not work-related to deny benefits. The law was passed, however, before rigorous research could be conducted on key issues that affect its application.

To help inform the California legislature's future thinking on the presumption created by

KEY FINDINGS

- Firefighters and peace officers do not appear to have worse mental health or higher suicide rates than other workers exposed to trauma on the job, though lack of data prevented direct measurement of the incidence of PTSD.
- Prior to SB 542, first responders' PTSD workers' compensation claims were more likely to be denied than PTSD claims filed by other types of workers who were exposed to trauma on the job.
- First responders' PTSD workers' compensation claims were more likely to be denied than claims for other conditions (such as cancer or heart trouble) that were already covered by a rebuttable presumption of being work-related.
- Under SB 542, additional costs to state and local governments for workers' compensation benefits for first responders with PTSD could be large but are highly uncertain. Without SB 542, the estimated statewide average yearly cost of benefits over 2020–2024 for new injury claims involving PTSD would have been about \$14 million per year for peace officers and about \$6 million per year for firefighters. Under intermediate assumptions, SB 542 might increase these costs to \$95 million per year for peace officers and \$21 million per year for firefighters.
- However, costs with SB 542 in place might range from \$38 million to \$179 million per year for peace officers and \$10 million to \$168 million per year for firefighters.
- First responders face many challenges to accessing mental health care for work-related trauma exposure that cannot be solely addressed by SB 542.
- Further research on SB 542's effects prior to its 2025 expiration would better inform evaluation of the law's effectiveness.

SB 542, which expires in 2025, the California Commission on Health and Safety and Workers' Compensation (CHSWC) asked the RAND Corporation to research a range of questions centering on first responders' mental health and suicide risks, how they access mental health care for work-related trauma exposure, how their PTSD workers' compensation claims are handled, and the costs associated with those claims, among other concerns.

In the resulting report, *Posttraumatic Stress in California's Workers' Compensation System: A Study of Mental Health Presumptions for Firefighters and Peace Officers Under Senate Bill 542*, RAND researchers found the following:

- Firefighters and peace officers do not appear to have worse mental health or higher suicide rates than other workers exposed to trauma on the job, though lack of data prevented RAND researchers from directly measuring the incidence of PTSD.
- Prior to SB 542, first responders' PTSD workers' compensation claims were more likely to be denied than PTSD claims filed by other types of workers who are exposed to trauma on the job. These claims were also more likely to be denied than claims for other conditions (such as cancer or heart trouble) that were already covered by a rebuttable presumption of being work-related.
- Additional costs to state and local governments under SB 542 could be large but are highly uncertain.
- First responders face many challenges accessing mental health care for work-related trauma exposure that cannot be solely addressed by SB 542.
- Further evaluation of SB 542's effects prior to its 2025 expiration would better inform assessments of its effectiveness.

A complete response to the 12 questions posed by CHSWC is contained in the RAND report. Firefighters and peace officers are referred to as *first responders* in this brief, with due regard for the fact they are not the only occupations considered first responders.

Implications for Policymakers

Some of the report's findings substantiate a central rationale for SB 542, which was to remove avoidable barriers to proving that a mental health claim was

work-related and to receiving compensation for mental health treatment.

Most organized opposition to SB 542 was driven by employers—city and county governments—who were worried about the costs that might result from a presumption for PTSD. The RAND report estimates the scale of those increased costs, with important caveats.

Even if SB 542 is as costly as the RAND report suggests, and even if evidence does not show that first responders have worse mental health or suicide rates than other workers exposed to trauma on the job, policymakers might still decide that SB 542's benefits justify the policy. The RAND report also raises another policy question: Are firefighters and peace officers the only first responders deserving of the presumption that a PTSD claim is job-related?

Addressing Questions About SB 542

To address CHSWC's questions, RAND researchers conducted a mixed-methods study. The research team combined quantitative analysis of survey and administrative data with information gathered through semistructured interviews about the experiences of those who used the workers' compensation system to get treatment for job-related mental health conditions across California.

The report was not designed to capture some potentially important categories of benefits that might accrue to city, county, and state governments from easing access to PTSD and mental health care for work-related trauma exposure for firefighters and peace officers. Those benefits include avoiding the costs of overtime to cover work absence due to PTSD, less turnover, and lower hiring and retraining costs. Those benefits—and potentially other costs—could be detailed with further research.

The RAND report also does not provide policymakers a firm yes-or-no recommendation on whether California should extend the presumption established by SB 542 in 2025; that calculus falls in the realm of policymaking, not research. There is still time, however, for further evaluation of SB 542 before the PTSD presumption is due to expire. Deeper exploration of SB 542's costs and benefits could fill some of the remaining gaps in knowledge to better inform deliberations on the law's future.

Exploring the Issues Around SB 542

First Responders Do Not Have Worse Mental Health Than Other Professionals Exposed to Traumatic Events on the Job

The RAND study reviewed published studies on suicide mortality rates by occupation and produced new estimates of the prevalence of serious mental distress and suicidal ideation by occupation using survey data on workers in California. The report did not find clear evidence of systematically worse mental health or elevated suicide risk among first responders.

Data on suicide mortality rates published by the Centers for Disease Control and Prevention did show higher suicide risk for women in protective service occupations, but more research is needed to determine whether this is driven by peace officers and firefighters or by other occupations, such as security guards and correctional officers—protective service occupations that employ more women than firefighting and police work and that exhibited signs of worse mental health in the data from California analyzed in the RAND study.

The finding that first responders do not have worse mental health than other professionals who are exposed to traumatic events on the job does not imply that the presumption created by SB 542 is unwarranted, however; the authors do not mean to suggest that mental health and suicide are not serious problems for first responders.

That said, RAND researchers found higher rates of mental distress and suicidal ideation in other trauma-exposed occupations—especially in ambulance drivers, non-firefighter emergency medical technicians (EMTs), and security guards. This finding indicates that challenges with mental health and suicide do not appear to be limited to or uniquely severe among firefighters and peace officers. Thus, public health officials should consider examining workplace mental health in a wider range of trauma-exposed occupations than just occupations covered by SB 542.

First Responders' PTSD Claims Were Denied More Frequently Than PTSD Claims Filed by Other Workers or Claims for Other Presumptive Conditions

Over the 12 years prior to enactment of SB 542, about a quarter of first responder claims involving PTSD were initially denied during the investigation stage or prior to payment of benefits (Figure 1). This includes 24 percent of firefighter claims and 27 percent of peace officer claims. These initial denial rates are statistically significantly higher than denial rates for PTSD claims filed by workers in other trauma-exposed occupations.

These comparisons across occupations have some important limitations: The report's estimates did not capture workers who did not receive PTSD care billed to workers' compensation. It is possible that the claim-denial rates among private-sector workers might be explained by their greater reluctance to file claims due to lesser job security and weaker protections against retaliation.

On the other hand, the report found (consistent with many prior studies) that severe mental health stigma arising from both institutional and cultural factors deters first responders from seeking help and filing workers' compensation claims. The RAND researchers could not eliminate these potential sources of bias in the estimates, so comparisons of denial rates must be interpreted with caution.

The report data also revealed that denial rates for PTSD claims by first responders were more than twice as high as denial rates observed for all other conditions that are presumed under the California Labor Code to be work-related among first responders (for example, cancer and heart trouble; Figure 2).

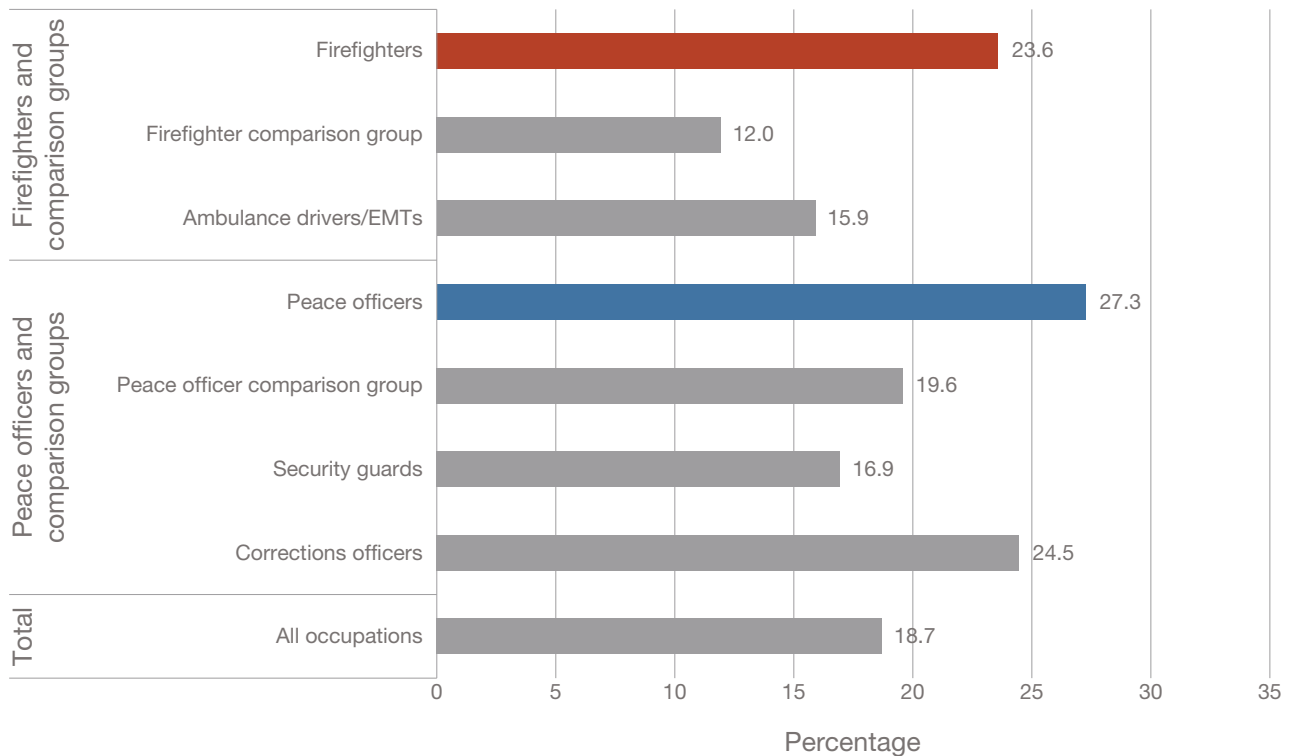
SB 542 Will Increase Workers' Compensation Costs for City, County, and State Governments, but Estimates Are Highly Uncertain

The potential additional costs generated due to a presumption that PTSD is work-related for first responders was a primary concern for those who opposed the passage of SB 542.

Two mechanisms might increase those costs. First, more first responders might make PTSD claims due to the law. (It should be noted that first respond-

FIGURE 1

The Initial Denial Rate for Workers' Compensation Claims Involving PTSD Was Statistically Significantly Higher Than the Denial Rate for PTSD Claims in Other Occupations



NOTES: Data reflect California workers' compensation claims with 2008–2019 dates of injury. Comparison groups for firefighters and peace officers are an average of 50 occupations (other than firefighting and peace officer occupations) with job demands and working conditions most comparable to firefighters and peace officers. See Table 2.5 and Appendix D in the report for details.

ers filed relatively few PTSD claims prior to SB 542: 82 firefighter claims and 171 peace officer claims per year between 2016 and 2019.) Second, it is likely that fewer of their PTSD claims would be denied, which could result in higher costs per claim filed.

The report substantiated one element related to higher costs: First responder PTSD claims are expensive compared with the average workers' compensation claim. On average, paid benefits, medical care, and settlements on first responder claims involving PTSD from 2008 to 2019 totaled \$63,049 in inflation-adjusted 2020 dollars, compared with \$14,076 on average for other workers' compensation claims by first responders.

Based on assumptions detailed in the report, and subject to the caveat that these estimates are subject to a wide range of uncertainty, RAND researchers found that, with the PTSD presumption in place, the annual yearly cost of PTSD claims for state and local government could increase from \$14 million to \$95 million for

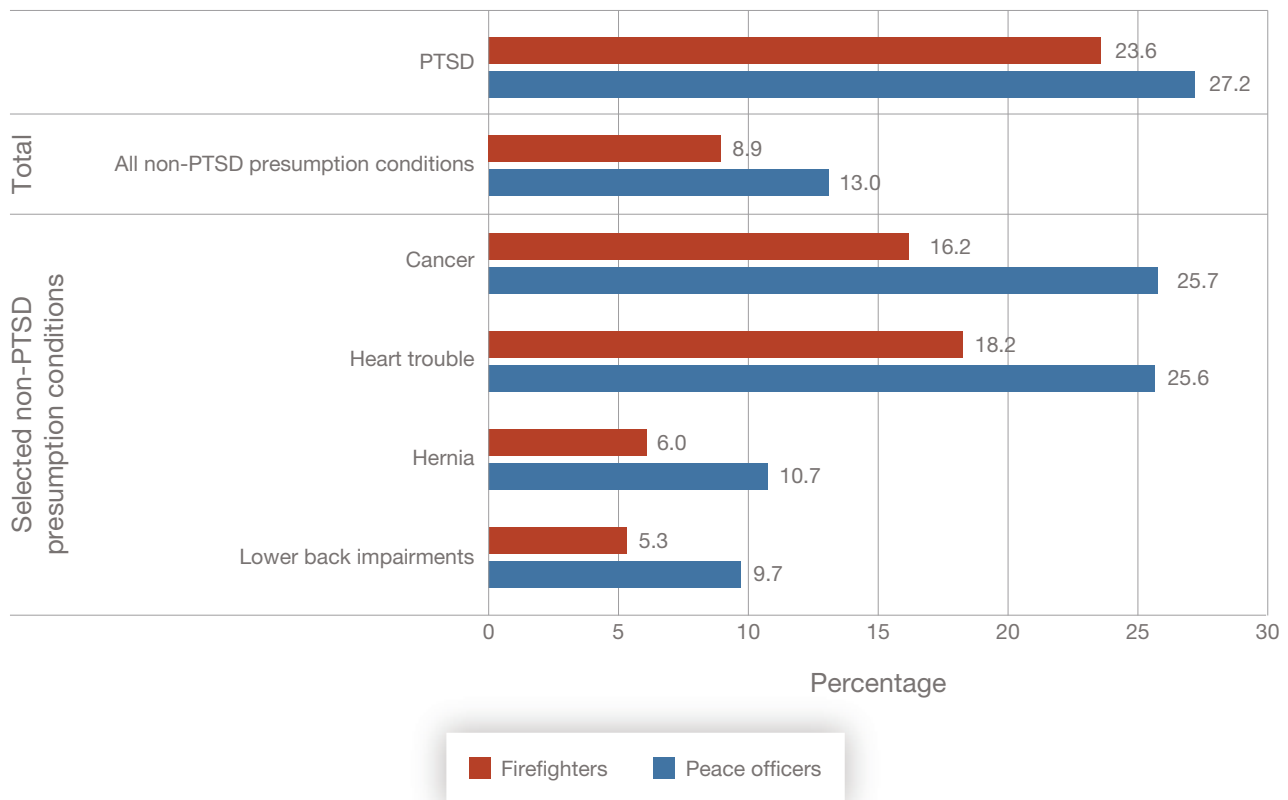
peace officers. For firefighters, the cost could rise from \$6 million to \$21 million. The uncertainty in these estimates arose in large part from the lack of precise understanding of the true PTSD incidence rate among first responders—something that should be elevated as a priority for future research.

First Responders Face Challenges Getting Adequate and Timely Mental Health Care for Job-Related Trauma for Reasons Not Addressed by SB 542

SB 542 was meant not only to provide financial compensation for first responders with PTSD but also to encourage first responders dealing with posttraumatic stress to seek out and obtain mental health care. Although the report did not assess mental health care delivery with SB 542 in place, interviews with injured workers and other stakeholders raised a number of seri-

FIGURE 2

The Initial Denial Rate on Workers' Compensation Claims Is Higher for PTSD Than for Other Presumption Conditions



NOTES: Data reflect California workers' compensation claims with 2008–2019 dates of injury. Selected presumption conditions are health conditions presumed to be work-related for firefighters or peace officers under Sections 3212 and 3213 of the California Labor Code. Lower back impairments are presumed work-related only for peace officers who carry a duty belt. Presumption conditions included in the average for all non-PTSD presumption conditions also include methicillin-resistant *Staphylococcus aureus*, other blood-borne infections, meningitis, pneumonia, tuberculosis, and exposure to a biochemical substance. See Table 2.4 in the report for further details.

ous concerns about access to timely and high-quality mental health care for first responders.

In the RAND researchers' interviews with first responders who had suffered from job-related PTSD, nearly all workers said that they had filed a workers' compensation claim for their mental health conditions—yet almost none received PTSD care paid for by workers' compensation. First responders interviewed generally did not seek mental health treatment through employer-sponsored insurance (ESI) or other health care coverage; mental health providers who billed ESI for a work-related claim would have those claims denied and redirected to workers' compensation.

Employee assistance programs (EAPs) were also viewed as ineffective by first responders who used them to address traumatic stress; others avoided EAPs entirely due to inadequate guarantees of confidentiality.

First responders emphasized the need for culturally competent mental health providers who understand the realities and exceptional demands of their work, and they reported little to no success accessing culturally competent providers through EAPs, workers' compensation medical provider networks, or ESI.

As a result, nearly all the first responders who were interviewed paid for their PTSD care entirely out of pocket, which caused severe financial strain in some cases. Some were eventually reimbursed by workers' compensation, but only after litigation and substantial delay. Some who pursued care through workers' compensation also noted that claim denials led to delays in the start of mental health treatment.

Many of these challenges do not originate solely within the workers' compensation system; even in a best-case scenario, SB 542 is not a panacea for all the

issues that RAND researchers identified with first responders' mental health care for work-related trauma exposure. Whatever the future of SB 542, governments and policymakers concerned about occupational mental health—in first responders and other workers—should consider alternative care delivery models that might be more effective than the patchwork of payers, provider networks, and administrative processes that constitutes the current mental health care system.

Filling Remaining Information Gaps Around SB 542

The RAND report provides policymakers and interested parties with new insights about first responders' experiences with PTSD workers' compensation claims. It also estimates SB 542's potential costs. In addressing CHSWC's questions, RAND researchers noted knowledge gaps that, if filled, would better inform deliberations on the law's future. The report suggests that more research is still needed in the following areas:

Evaluate SB 542's Effects to Date

Evidence on first responders' PTSD claim volumes and denial rates since SB 542 came into effect in 2019 are crucial to assessing its effects. Unfortunately, the coronavirus disease 2019 (COVID-19) pandemic will complicate interpretation of 2020 data. CHSWC should revisit this question in 2023, when the pandemic might have receded.

More information on the effect of SB 542 on issues of stigma related to PTSD care, uptake of mental health care services for work-related trauma exposure, and first responders' organizational culture would enrich future deliberations on the law. Likewise, further qualitative investigation could aid in understanding whether burdens of the PTSD claims process are reduced under SB 542 (particularly claim denials resulting from disconnects in mental health provider documentation).

Quantify Costs and Benefits of Providing Better Mental Health Care for Work-Related Trauma Exposure to First Responders

The RAND report did not constitute a full cost-benefit analysis of more effectively addressing PTSD in first responders. Potential benefits that should be explored

more rigorously include better readiness and improved public safety.

On the cost side, uncertainty in the report's estimates of additional costs to city, county, and state governments arising from SB 542 resulted from a lack of data on the true PTSD incidence rate among first responders. The report's findings also were constrained by limited evidence on the indirect costs of untreated PTSD, including work absences, staff turnover, degraded job performance, and other factors.

Quantification of these costs and benefits would inform balanced consideration of SB 542 in the future.

Examine Different Models of Mental Health Care for Trauma-Exposed Workers

The report noted the difficulties that first responders confront when seeking culturally competent mental health providers under current structures. Although some first responder organizations are experimenting with interesting models to address that shortcoming, evidence on their effectiveness, costs, and benefits is scarce.

Contemplate Expanding the SB 542 Presumption to Other Occupations

As noted, firefighters and police are not the only front-line workers exposed to trauma. Paramedics, transport personnel, and some nursing professionals, for instance, can experience some of the same mental health dynamics confronting firefighters and peace officers—especially during the COVID-19 pandemic. If policymakers find that SB 542's benefits exceed its costs, a question would arise as to whether the law's presumption that PTSD is job-related should be extended to other occupations in which workers are exposed to traumatic events on the job.

Research on the similarities and differences between those covered by SB 542 and other occupations in terms of mental health treatment would provide an evidence base to inform future deliberations.

This brief describes work done in RAND Social and Economic Well-Being and documented in *Posttraumatic Stress in California's Workers' Compensation System: A Study of Mental Health Presumptions for Firefighters and Peace Officers Under Senate Bill 542*, by Denise D. Quigley, Michael Dworsky, Nabeel Qureshi, J. Scott Ashwood, Kelsey O'Hollaren, and Lisa S. Meredith, RR-A1391-1, 2021 (available at www.rand.org/t/RR-A1391-1). To view this brief online, visit www.rand.org/t/RBA1391-1. The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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